Application No.	Applicant(s)	
10/666,754	LI ET AL.	•
Examiner	Art Unit	
Joseph P. Hirl	2129	
(OR REMAINS) CLOSED or other appropriate comm IGHTS. This application is	in this application. If not include nunication will be mailed in due	ded e course. <b>THIS</b>
e been received. e been received in Applicat cuments have been receive of this communication to fi	ion No ed in this national stage applic	
noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF		
INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.		
<ul> <li>5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.</li> <li>(a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached</li> <li>1) hereto or 2) to Paper No./Mail Date</li> <li>(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date</li> <li>Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).</li> </ul>		
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.		
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5 □ Notice of I	nformal Patent Application	
6. Interview	Summary (PTO-413),	
7. Examiner	s Amendment/Comment	
8. ⊠ Examiner's 9. ☐ Other	$\sim 1/1$	
	Interview S  Basedon the cover sheet was considered as the cover sheet was and MPEP 1308.  Index 35 U.S.C. § 119(a)-(d) as the communication is a sheet of this communication to fill MENT of this application.  Interview S  Basedon the cover sheet was a sheet was a sheet with the communication to fill MENT of this application.  Interview S  Basedon to the sheet was a sheet was a sheet with the communication to fill MENT of this application.  Interview S  Basedon to the sheet was a sheet was a sheet was a sheet with the communication to fill MENT of this application.  Interview S  Basedon to the sheet was a sheet	ars on the cover sheet with the correspondence add (OR REMAINS) CLOSED in this application. If not include or other appropriate communication will be mailed in duction of the application is subject to withdrawal from iss and MPEP 1308.  Inder 35 U.S.C. § 119(a)-(d) or (f).  Be been received.  Be been received in Application No  Comments have been received in this national stage application of this communication to file a reply complying with the reflection of this application.  In the submitted. Note the attached EXAMINER'S AMENDMENT or es reason(s) why the oath or declaration is deficient. Set be submitted.  Son's Patent Drawing Review (PTO-948) attached attached according to 37 CFR 1.121(d).  It is of BIOLOGICAL MATERIAL must be submitted. FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.  5. ☐ Notice of Informal Patent Application for the the patent of the paper No./Mail Date  7. ☐ Examiner's Amendment/Comment to the Reasons for All Examiner's Statement of Reasons for All Examiner

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## Reasons for Allowance

1. Claims 1-44 are allowed.

2. The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fails to teach the claims invention of classifying data by training a stochastic key feature generation model using training data and associated summaries whereby the trained model maps data into vectors that are classified by categories and used to train a classifier. Alternatively, a previously trained classifier using training data and associated summaries receives a vector to be classified from a process using a key feature generation model and data. Alternatively, train a text classifier using training text and a plurality of summaries and further associating such text with related categories and then classifying text without related summaries. Alternatively a key feature generation model-based generation module to generate a vector based on a key feature model, formed from training data and summaries, and data and a classifier to receive such vector and to classify such vector.

The closest prior art (Raskutti et al, USPubN 2006/0089924) teaches document categorization system which includes generating clusters of related electronic documents based on features and a filter to learn a model(s) - to further categorize the documents. Raskutti does not teach model development to establish vectors with associated categories and train a classifier.

Independent claims 1, 21, 25, 30, 40 and 43 provide a result that is a practical application.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Correspondence Information

3. Any inquiry concerning this information or related to the subject disclosure should be directed to the Primary Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David R. Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

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(located on the first floor of the south side of the Randolph Building); or faxed to:

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(571) 273-8300 (for formal communications intended for entry.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Joseph P. Hirl

Primary Examiner December 13, 2006